



Year Three Major Milestones

Russian River & Dry Creek Flows

Milestone: Within six months of the State Water Resources Control Board's (State Water Board) public notice of SCWA's petition to change Decision 1610, the Water Agency must begin the environmental process by issuing a Notice of Preparation.

- ✓ NOP was issued on September 29, 2010.
- ✓ Modeling of proposed flow changes and environmental analysis are ongoing, with the draft EIR expected to be released in fall 2012.

Milestone: Beginning in 2010, the Water Agency must petition the State Water Board for temporary changes in D1610 that will allow minimum flows to be reduced in the summer in the Russian River.

- ✓ Petitions were filed (and the State Water Board approved) Temporary Urgency Changes in 2010 and 2011.

Estuary Adaptive Management

Milestone: The Water Agency, in consultation with NMFS, California Department of Fish & Game (CDFG) and the U.S. Army Corps of Engineers (Corps), is required to annually prepare a barrier beach outlet design by April 1.

- ✓ The lagoon outlet channel adaptive management plan was finalized on May 11, 2012. It was prepared by Philips Williams & Associates (PWA) consultants.
- ✓ The Water Agency was prepared to implement the lagoon outlet channel but the mouth of the estuary didn't close during the management period (May 15-October 15).

Milestone: The Water Agency must conduct and record monthly surveys of the beach topography and the outlet channel. The Water Agency must also place a time lapse video camera to record the interaction of waves, tides and the river mouth.

- ✓ The Water Agency conducted monthly beach topography surveys. A video camera was installed in 2009.

Milestone: The Water Agency must continue its annual estuary water quality monitoring.

- ✓ The Water Agency installed 14 data sondes at 10 water quality stations in the estuary, which were calibrated every two weeks. In addition, the Water Agency is continuing to work with Bodega Marine Lab and PWA consultants on a circulation model and water quality monitoring for the estuary.

Milestone: The Water Agency is required to design and conduct ongoing extensive surveys of estuary invertebrates.

- ✓ The Water Agency worked with University Of Washington on an invertebrate study that provides information on the availability of steelhead prey in the estuary. The initial results of the study were presented by the university in December 2011. Researchers found that recaptured steelhead were primarily feeding on benthic and epibenthic invertebrates.
- ✓ **Milestone:** From late spring to early fall (when flows are below 300 cfs at Hacienda Bridge), the Water Agency must conduct monthly surveys of steelhead in the estuary.
- ✓ The Water Agency conducted seining activities monthly from May to October and installed a fyke net, which was monitored daily.

Milestone: If planned estuary closures don't lead to desired water levels by the end of 2010, SCWA must draft a study plan for analyzing the Jenner jetty.

- ✓ A draft plan was developed, and studies will begin in summer 2012, when it is anticipated that all permits for working on the beach will be in-hand.

Milestone: SCWA must develop a list of structures, properties and infrastructure that could be affected by flooding as the result of a closed sandbar by March 24, 2010.

- ✓ A list was prepared and provided to NMFS in March 2010.

Dry Creek

Milestone: The Dry Creek bypass pipeline feasibility study is to be completed by the end of 2010.

- ✓ After receiving comments from both the Dry Creek Advisory Group and regulatory agencies, the draft pipeline feasibility study was issued in April 2011. The study was finalized in November 2011.

Milestone: Dry Creek habitat enhancement conceptual design are to be completed by the end of 2010.

- ✓ The draft habitat enhancement conceptual design was completed by Water Agency consultant Interfluve, Inc. in April 2011. Attention shifted to a more in-depth analysis and design of the first-mile demonstration project (brought forward by a group of willing landowners). While it's not a milestone identified in the Biological Opinion, the Dry Creek Demonstration Project could allow some enhancements to be constructed in 2012 – a year ahead of the schedule identified in the BO.

Milestone: The engineering design and permitting for the first mile of Dry Creek habitat enhancement must be underway in 2011.

- ✓ The 90% engineering document for the first mile was released in December 2011 and the permitting process began in 2011, following the Board of Director's approval of CEQA documents for the project.

Milestone: Five habitat enhancement or fish passage projects must be built on Russian River tributaries before the end of Year 3.

- ✓ Three tributary projects have been completed and two are in progress: Grape Creek habitat enhancements were completed (as a hopeful sign of success, juvenile coho were found in the creek in 2011); Crane Creek pool enhancement and creation occurred in 2011 to give steelhead and coho greater access to spawning habitat; several plugged/collapsed culverts were replaced with a bridge on Willow Creek in 2011; modification of bridge culverts on Wallace Creek at Mill Creek Road and Grape Creek at West Dry Creek Road are in progress.

Milestone: Water Agency must initiate a feasibility study of a Dry Creek bypass pipeline during the fall of 2008, to be completed by the end of 2010.

- ✓ Pipeline consultants HDR Inc. completed a draft of the study in December 2010, but the final study wasn't released until comments were received from regulatory agencies and the Dry Creek community.

Warm Springs Dam

Milestone: The Water Agency must support the coho broodstock program, located at the Don Clausen Visitor's Center & Fish Hatchery.

- ✓ In 2012, the Water Agency provided a Natural Resources Program Assistant to work in the broodstock program.

Fish Monitoring in Russian River & Dry Creek

Milestone: The Water Agency is required to do the following fish monitoring: Annually operate rotary screwtraps at Mirabel and in lower Dry Creek to measure juvenile Chinook, coho and steelhead; implement field sampling efforts to capture fry at several Dry Creek locations; conduct annual juvenile steelhead and coho salmon rearing surveys pre- and post-habitat enhancement projects.

- ✓ In April 2011, the Water Agency installed and began operating a rotary screwtrap in Dry Creek, capturing 2,952 steelhead juveniles and smolts (a lifestage migrating to the ocean), 20,389 Chinook smolts and 199 coho juveniles and smolts (including 101 wild coho).
- ✓ On April 2011 the Water Agency began operating a pair rotary screw traps in the mainstem of the Russian River just downstream of an inflatable dam at Mirabel, near Forestville. Over the course of the 2011 trapping season, 680 steelhead juveniles and smolts, 897 coho juveniles and smolts, and 13,581 Chinook smolts were captured.
- ✓ Juvenile salmonid surveys were conducted in Dry Creek in late July and early October.

Mirabel Fish Screen and Wohler Ponds

Milestone: The Water Agency shall complete design of the new fish screen at Mirabel within three years of the issuance of this biological opinion.

- ✓ In June 2011, the Water Agency received a \$255,000 California Department of Fish and Game Fishery Restoration Grant for design of the project. Consultant (HDR Engineering) completed the 30% design in November and is working on the 60% design.

Milestone: Within three years of the issuance of this biological opinion, the Water Agency shall decommission or modify the infiltration ponds on the east side of the Russian River at the Mirabel/Wohler facility.

- ✓ The project was completed in September 2011.

Consistency Determination

Milestone: In order to ensure that the Water Agency can cover all the costs associated with monitoring, management and habitat enhancement, CDFG requires funds be deposited for “Stage One” improvements (covering 2009-2013).

- ✓ In September 2009, the Water Agency Board of Directors approved the deposit of \$7.8 million to serve as security for Stage One.

What’s Ahead in 2012: Year Four Major Milestones

Russian River & Dry Creek Flows

Milestone: Within four years of filing the petition to change Decision 1610, the Water Agency’s Board of Directors must certify a final California Environmental Quality Act/National Environmental Protection Act (CEQA) document. The petition was filed on September 23, 2009, meaning the CEQA document must be certified by September 23, 2013. A significant portion of time in 2012 will be dedicated to the meeting this deadline.

Milestone: In 2012, the Water Agency must petition the State Water Board for temporary changes in D1610 that will allow minimum flows to be reduced in the summer in the Russian River.

Estuary Adaptive Management

Milestone: The Water Agency, in consultation with NMFS, California Department of Fish & Game (CDFG) and the U.S. Army Corps of Engineers (Corps), is required to annually prepare a lagoon outlet adaptive management plan by April 1.

Milestone: The Water Agency must conduct and record monthly surveys of the beach topography and the outlet channel. The Water Agency must also use a time lapse video camera to record the interaction of waves, tides and the river mouth.

Milestone: The Water Agency must conduct annual estuary water quality monitoring.

Milestone: The Water Agency is required to conduct ongoing extensive surveys of estuary invertebrates.

Milestone: From late spring to early fall (when flows are below 300 cfs at Hacienda Bridge), the Water Agency must conduct monthly surveys of young steelhead in the estuary.

Milestone: Within nine months of completing the 2011 fish monitoring studies, the Water Agency must submit an annual report.

Milestone: By December 2012, the Water Agency must complete and submit to NMFS and CDFG a jetty study that evaluates alternatives including jetty removal and partial removal, jetty notching and potential use of the jetty as a tool for maintaining estuary surface water elevations.

Dry Creek

Milestone: The engineering design and permitting for the first mile of Dry Creek habitat enhancement must be completed by the end of 2012.

Fish Monitoring in Russian River & Dry Creek

Milestone: SCWA must annually operate rotary screwtraps at Mirabel and in lower Dry Creek to measure juvenile Chinook, coho and steelhead; conduct an annual juvenile steelhead and coho salmon rearing survey during Warm Springs Dam inspection periods, when water releases are lower.

Mirabel Fish Screen and Wohler Ponds

Milestone: SCWA shall complete design of the new fish screen at Mirabel within three years of the issuance of this biological opinion and construct the new fish screen within three years of completion of design.